

Notice of Allowability

Application No.

09/865,153

Examiner

Joshua L. Pritchett

Applicant(s)

MEARINI ET AL.

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed February 16, 2005.
2. ☒ The allowed claim(s) is/are 11-15 and 17-20.
3. ☒ The drawings filed on 24 May 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

This action is in response to Amendment filed February 16, 2005. Claim 15 has been amended and claims 18-20 have been added as requested by the applicant.

Allowable Subject Matter

Claims 11-15 and 17-20 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claim 15, Phillips teaches a means for monitoring layer growth (col. 5 lines 41-44), a means for depositing the high index layer onto a substrate (Fig. 2), a means for depositing the diamond-like carbon onto the high index layer (Fig. 2), a means for monitoring the indices of refraction (col. 4 lines 56-60) and a means for directed an ion beam onto the carbon layer (col. 4 line 54). Phillips teaches a required range for the physical layer thickness and the indices of refraction, therefore one of ordinary skill would find it obvious to have a means for monitoring those values to guarantee the values are within the specified ranges. Phillips lacks reference to the monitoring of intrinsic stress and adjusting the intrinsic stress. Wolfe teaches means for monitoring and adjusting the intrinsic stress (col. 2 lines 17-20). Wagal teaches a means for smoothing the carbon layer (abstract). Wagal teaches a surface roughness of 1 Angstrom, which is approximately atomically smooth but cannot be construed to meet the claim limitation of a surface roughness of less than 0.05 nanometers. Wagal teaches a required

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range for the smoothness of the carbon layer, therefore one of ordinary skill in the art would find it obvious to provide a means to achieve the smoothness. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Phillips invention include the smoothness of Wagal for the purpose of reducing light scattering at the surface of the carbon layer. It would further have been obvious to a person of ordinary skill in the art at the time the invention was made to have the Phillips invention include the intrinsic stress monitoring and adjust of Wolfe for the purpose of producing a hard and chemically resistant film. The prior art of record fails to teach or suggest a diamond-like carbon layer having a surface roughness of less than 0.05 nanometers.

Regarding claims 11 and 17, the prior art of record fails to teach or suggest a diamond-like carbon layer having a surface roughness of less than 0.05 nanometers.

The remaining claims depend from claims 11 and 17 and are allowable for the same reasons.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua L. Pritchett whose telephone number is 571-272-2318.

The examiner can normally be reached on Monday - Friday 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A. Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JLP 


DREW A. DUNN
SUPERVISORY PATENT EXAMINER